

C.12 Italy - 1976 - Earthquake

Case study: Shelter construction

Case study credit:
UNDRO 1982

Disaster:

Earthquake Friuli, Italy

Disaster date:

6 May 1976
15 September 1976

Number of houses damaged or destroyed:

30,527

No. of people displaced:

45,000

Occupancy:

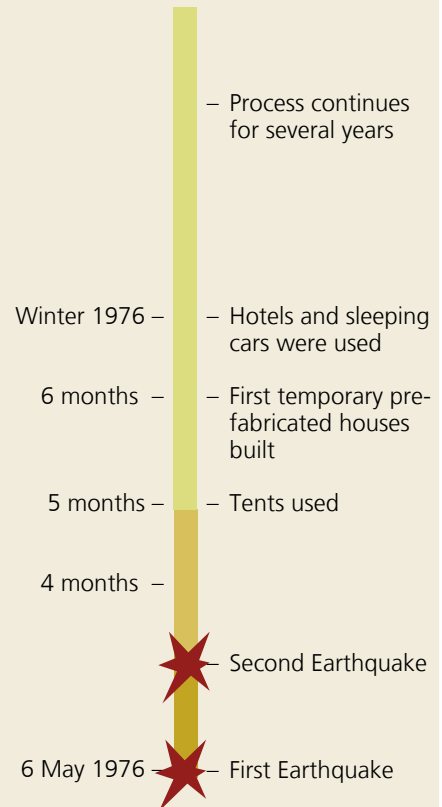
Campsites with tents - very low;
individually distributed tents - very low;
mobile homes - 100%;
150 railway sleeping cars - very high;
20,000 hotel rooms - 100%;
25,000 prefabricated houses - very high.

Value of damage:

Estimated 1.1 billion USD



Project timeline



Emergency

Municipalities were responsible for providing temporary accommodation (of the type indicated above) for their affected citizens. Workers commuted between their temporary accommodation and the affected villages.

Tents were used from May to October 1976. Hotels and sleeping cars were used in winter. The first temporary prefabricated houses were built by the winter of 1976, but the process continued for a number of years.

Reconstruction

Pending the rebuilding of houses to their original form, temporary prefabricated houses were provided on specially prepared and serviced sites. All reconstruction was to be to earthquake-resistant standards. This policy of building twice, was designed to prevent migration away towards the large industrial centres of the works, by providing both short term and long term incentive to stay.

Strengths and weaknesses

- ✓ The extensive use of mobile homes and hotels (in winter) was most successful, in contrast to low occupancy of tent campsites.
- ✓ Responsibility was decentralised to the local authorities. This increased the accountability of officials to the disaster victims, even though there were unequal performances between some municipalities.
- ✗ The temporary housing policy, pending permanent reconstruction, proved to double the costs of reconstruction due to the price of prefabricated units and the investments needed to provide sites and services. This policy in effect retarded reconstruction.
- To some extent, pressure from the media and politics led to the temporary housing policy..



Tents were used until winter, after that hotels, and trains were used. Afterwards prefabricated houses were built. Photo: Ian Davis